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## Health Resources in Defense of the Nation

"A strong, healthy, working population is as essential as a strong fighting force . . ."

This was more than a lead-in statement to a panel discussion on the medical aspects of civil defense. Succinctly, it expressed the theme motivating week-long (October 23-27) discussions, sessions, and seminars of the Association of State and Territorial Health Officers.

The remark itself was among those made by Dr. Leonard A. Scheele, Surgeon General, Public Health Service, on a Columbia Broadcasting System interview, October 26. Dr. Wilton L. Halverson, President of the Association and Director of Health for California, and Dr. Herman E. Hilleboe, Commissioner of Health for New York, completed the guest panel. The voice of the inquiring reporter belonged to CBS's Alex Kendrick.

During a recess the three public health officials had hurried to the CBS studio from the Annual Conference of the Surgeon General and the Chief of the Children's Bureau with the State and Territorial Health Officers, the State Mental Health Authorities, and Representatives of the State Hospital Survey and Construction Authorities. It was the forty-ninth such conference. The surroundings were the same as a year ago—the auditorium of the Federal Security Building in the Nation's Capital. Many in attendance were the same persons who registered for the conference a year ago. Most of the committees were the same. But with that the similarity vanished.

For what had been an undertone, a cautious paragraph of forewarning a year ago, was now being heard in amplified and ominous urgency. More than once, and in a dozen different ways, the conference heard officials and leaders emphasize the essentiality of a healthy Nation to

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This issue was prepared by the editorial staff of PUBLIC HEALTH REPORTS, Taft Feiman, Chief; Winona Carson, Lee Michelson, and Emily Johnson. Grateful acknowledgment is made of assistance given by Ruth Lauder and Harold Tager, information specialists, Public Health Service, and Joseph G. Riddle, information specialist, Children's Bureau.

support the forces committed to military action. All were agreed that public health programs and progress not only had to be maintained but that public health agencies, voluntary and official, had to start immediately to provide adequate health and medical defense machinery.

How was this to be accomplished? What has been done to integrate the health agencies and the health workers with defense planning? How were personnel and matériel needs of these programs to be met? How were staffs on continuing health programs to be manned in face of military call-ups? What was the role of the health defense setup in the case of atomic attack? In the case of biological warfare? What was the best method in organizing State and local health defense systems? What were mutual aid pacts? What impact will the "doctor draft" have on public health services?

These were the concerns of the 1950 conference, these and a hundred other questions, much more specific, and all of them important. The health officers listened, asked, and then, expertly recommended and guided.

PUBLIC HEALTH REPORTS does not have the space to print the proceedings word for word. But it was felt that at least a digest of the conference ought to be attempted for the immediate benefit of health workers all over the Nation. In preparing such a digest, remarks have to be condensed, pulled out of context, and a great deal of selectivity exercised. *Although quotation marks are not used in this report, it is clear that these are condensed remarks made by the speakers, with essentiality of the subject matter the prime consideration in the editing of them.* In appropriate positions in the text will be found condensations of most of the recommendations of the conference.

# **Civil Defense**

## **Scheele . . . Health Prime Aid to Defense**

The larger design developing for the defense of the Nation and for the defense of democracy throughout the world is threefold, said Leonard A. Scheele, Surgeon General of the Public Health Service.

Each element is of equal importance:

First, military defense to be ready for emergencies, and to strengthen our allies.

Second, civil defense to place the Nation in readiness for enemy attack at home, open or clandestine.

Third, technical and economic assistance to underprivileged peoples of the world so that they may withstand the false promises of communism and fascism.

In the long run—and it will be a long run—a strong, expanding health program will be the most effective way of assuring a strong Nation, capable of supplying the demands of the military for manpower and matériel, and capable of organizing and operating its own civil defense. The Public Health Service believes, therefore, that any major reduction in civilian health services would be both unwise and uneconomical. Every set-back that our public health program suffers is a set-back for national defense.

The Public Health Service has had a task force of some of its top officers working for the past 2 months with Dr. Kiefer's group (NSRB) on plans for emergency health and medical services. The manual, "United States Civil Defense" outlines the broad plan. The manual on health and medical services will soon be ready.

### **Local Nerve Centers**

One factor is of special interest. State organization for civil defense is stressed more than during the emergency of 10 years ago. A strong State organization will be necessary to act as a nerve center through which attacked areas may be served and to assure adequate mutual aid.

One phase of our planning for civil defense should be emphasized—a phase likely to be passed over lightly in our natural response to the frightening prospect of having to deal with tens of thousands of dead and critically injured people. This is the prospect of hundreds of thousands of people who may be suddenly bereft of food, clothing, shelter—and all the normal public health services. A safe and adequate supply of water; protection against epidemics; medical and nursing care for all those health emergencies which inevitably arise even

under normal conditions; all these are essentials. The threat of panic among these hundreds of thousands of people requires not only police skills—but rather, primarily, the skills of health and social workers. The first essential is advance education of the public. Next, speedy relief of discomfort, hunger, and thirst; speedy assurance of health protection. These are the best means of allaying fear and averting panic.

The restoration and protection of health services should receive the same emphasis and attention in planning as rescue, casualty service, burial, information center, and so on. The Nation's health agencies are the logical sources of planning and organization in this area of civil defense. They possess the knowledge, skills, and the trained, full-time staffs to undertake the responsibility, and the NSRB has recommended that the State and local health departments serve in that capacity.

There are many problems of supply in emergency health and medical services. One of the most critical is the storage of blood, blood derivatives, and blood substitutes. The Public Health Service is working on these problems.

### **Salt-Soda for Shock**

Recently, the Surgery Study Section of the National Institutes of Health recommended that the Public Health Service release information on the value of oral salt-soda solution in the emergency treatment of shock. A review by the Surgery Study Section has shown that the administration of large quantities of salt solution by mouth during the first 24 hours will prevent shock and death in a high proportion of burn and wound casualties.\*

### **Mass Blood Typing**

Several communities are developing plans for mass blood typing of the general population, on the ground that such advance typing might afford additional protection to the people in the event of severe enemy attack. Other communities are eager—some anxious—to know what course to take.

The basis for community concern is the assumption that large numbers of injured persons will immediately need whole blood transfusions. Actually, plasma and plasma substitutes, such as oral salt-soda solution—which require no typing—will be the emergency treatment of choice in the event of disaster. When critically injured persons arrive at the hospital for definitive care, they can be typed

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\*The October 13 issue of PUBLIC HEALTH REPORTS contains the report of the Study Section as well as the report by Dr. Carl A. Moyer, Dean of the Southwestern Medical School, University of Texas, to the National Security Resources Board on oral salt-soda solution.

quickly and the donors or stored blood can be cross-matched at the same time. The major need will be for type O (low titer) blood.

Governmental agencies and professional societies at the present time think that any State or local plans for blood typing should conform with the National Civil Defense Program and the National Blood Program, in cooperation with the American Association of Blood Banks, the national American Red Cross, the American Medical Association, and the American Hospital Association. When typing is done, principal emphasis should be placed on typing people who will give blood either in advance for storage in blood banks or for use at the time of an emergency.

The chief reason for concentrating on a limited group at the present time is that our immediate need is to identify type O donors in advance. Since only persons between 18 and 60 years are potential donors, the search for type O donors should be concentrated in those population groups. Later, blood-specific typing of the general population may be feasible.

There are many practical and technical difficulties involved in mass blood typing which may be overcome in time. At present, the demands which mass blood-typing campaigns would place on manpower and supplies of typing serum, plus the risk of errors made by hastily trained personnel, should be taken into account. We feel that any mass blood typing of the general population at this time would be undertaken as a calculated risk, and at a time when there is reasonable doubt regarding the method's effectiveness. Undoubtedly, the forthcoming manual of the National Security Resources Board on health and medical services will make recommendations regarding the blood program.

## **Kiefer . . . Organize State Health Resources**

The civil defense program for this country must be in constant readiness because for the first time in 136 years an enemy has the power to attack our cities in strong force, and for the first time in our history that attack may come suddenly, with little or no warning, Dr. Norvin C. Kiefer, Director, Health Resources Office, National Security Resources Board, told the health officers.

Granted a few minutes warning, casualties could be reduced by over 50 percent through proper organization and training in civil defense. More important, civil defense could spell the difference between defeat with slavery for our people and victory in a war thrust upon us.

Quoting these warning phrases from the manual, "United States Civil Defense," Dr. Kiefer went on to state that the planning and

operating areas involve practically all of the skills, knowledge, and experience used daily in peacetime programs, and a number of new skills will have to be added. Radiological monitoring, city-wide radiological safety measures, and decontamination procedures constitute new and difficult fields.

He reported that about 150 physicians and 85 specially qualified persons have already been trained in medical aspects of atomic warfare and in radiological defense measures by the Atomic Energy Commission, and they form the nucleus for teaching in their States. Nurses are presently being called for a similar training course.

However, we should not become so engrossed with special weapons defense measures and with the methods of treatment of injuries peculiar to special weapons that we lose sight of the most important task—the provision of an organization, with adequate supplies and hospital facilities, to care for tens of thousands of living casualties, most of whom would be suffering from burns, shock, lacerations, and other mechanical trauma.

### **Will Have Manual**

A health and medical defense services manual to guide health agencies and organizations will contain detailed suggestions for organization, facilities, equipment, and supplies. Each State will have to adapt these plans to fit conditions that are peculiar to it.

Around each critical target area within each State there are mutual aid circles. At the time of attack, communities within these circles would spontaneously send their medical facilities into the attacked area. Mobile support, in the form of groups that include self-contained teams for police, fire, rescue, and health work, would be dispatched by the State on notification of attack.

Saturation of all defense facilities to a point of uselessness now can be accomplished with a single bomb unless we are organized to handle mass problems.

### **Steps to Take Now**

1. State medical, dental, nurses, veterinary, hospital, and related associations are ready and eager to get to work on civil defense. Use them on advisory committees, important positions in your organization, and depute them, if necessary, to give them sufficient authority in time of disaster. Avoid use of military personnel for key spots since it invites collapse of organization when reassignment of the military personnel to another area occurs.

2. Familiarize yourself with all health resources in your State. Federal stores of consumable supplies and related items will be located near critical target areas, sufficiently removed from the potential attack zone. These supplies will be available to supplement local supplies.

3. Learn the assumed critical target areas in your State.
4. Stimulate local organization of local civil defense health services.
5. Read the recent publication of the Atomic Energy Commission, "The Effects of Atomic Weapons."

## **Hilleboe . . . New York Defense Plan**

New York State is producing a sound civil defense plan, Dr. Herman E. Hilleboe, New York State Commissioner of Health, announced in reporting his observations of the English program as well as his experience in developing a program for New York.

Dr. Hilleboe went to England to study the defense measures there and to draw from English experience with aerial bombing the defense, medical, and rescue lessons needed to save effort and costly mistakes in planning for defense against atomic attack.

The New York State Health Department has the responsibility of State-wide planning for the medical and public health activities of the civil defense program. Additional duties are coordinating local resources, training teachers and key personnel, stockpiling State supplies and handling Federal supplies allocated to the State, and making special studies to improve medical procedures used in civil defense. The State's coordinating activities include Federal-State, interstate, and interdepartmental relations, and proper liaison between the department of health and the civil defense commission. In addition, a two-way channel must be kept open between the State and the county and city health departments.

### **Advisory System**

Advisory committees must be kept few in number and as small as possible, otherwise too much time of operating personnel will be taken up going to meetings, making and listening to speeches, and important work will be delayed. The pattern used in New York State is a simple one. The two principal committees are (1) the health resources committee which includes representatives from the major health groups in the State—official and voluntary; (2) the medical advisory committee of the Medical Society of the State of New York which includes the president of the Society and the chairmen of the various special committees involved in civil defense. Specifically, these are the committees on health preparedness, public health and education, and blood banks. When special problems arise, one of the members of the medical advisory committee is appointed chairman of a small subcommittee which reports back to the medical advisory committee. In this way, one main committee keeps all advisory activities under control.

For example, the chairman of the health preparedness committee called a meeting of the clinical specialists from the nine medical schools in New York State to establish uniform procedures for emergency treatment of burns, shock, and fractures—a step extremely important in the interchange of personnel and in determining what supplies must be stockpiled. This chairman will report back to the medical advisory committee and the committee will report to the State commissioner of health, who serves as the medical member of the State civil defense commission and reports to its chairman.

### **Training Program**

The health department has developed a State-wide plan which places the office of medical defense in the executive division of the commissioner until the permanent status and function of this office is determined. Key personnel throughout the department have been assigned special tasks on a part-time basis. Their activities in civil defense are coordinated by the health department's office of medical defense, with major policy decisions cleared through the commissioner of health. These public health experts call upon department advisors and consultants for advice.

The department has prepared a basic guide for emergency medical and public health services for cities and local communities; it reviews local plans to determine the best use of doctors and other professional personnel, and has established regional units which can be strategically utilized, singly or in multiples, in the event of attack. A public health physician is assigned full time to the civil defense commission to act as an alternate member of the central headquarters control staff. He also determines what resources and personnel will compose mobile columns that will be sent to areas of devastation.

Early in 1949 the New York State Department of Health sent a number of its physicians and engineers to Washington for civil defense training courses. These men served as instructors for other members of the State health department. In June 1950, a training program was arranged for all practicing physicians.

Subjects taught include the role of the health officer in medical preparedness against atomic disaster, a discussion of the problems encountered at the time of explosion, a discussion of radiation syndrome in man, a presentation of elementary nuclear and radiation physics, the biologic and genetic effects of radiation, the pathology and treatment of victims of an atomic explosion, and a discussion of radiation detection and measurement instruments.

A 1-day teaching course in each area of the State proved sufficient for orientation of general practitioners. Ninety-six 1-day teaching courses have been arranged for nearly 10,000 physicians in upstate New York. Attendance so far has been well over 80 percent of the

registered physicians in the area. In addition, 60 sessions have been planned for physicians in New York City. Also to be trained will be 500 licensed osteopaths and about 50,000 registered professional nurses and licensed practical nurses. The training of lecturers and the preparation of detailed curricula require the highest degree of competence from the health department and the medical schools.

Principal target areas have been indicated and special attention has been given to the resources in the vicinity of the target areas. For example, plans for Suffolk, Nassau, and Westchester, which adjoin the metropolitan areas, are extremely important in the event that New York City is hit. Target areas must be concerned primarily with self help and secondarily as sources of help to other target areas.

In nontarget areas, the major emphasis of defense activities is on mutual assistance. The target areas would be helpless to take care of their injured without aid from supporting areas. Furthermore, emergency hospitals, supply depots, and evacuation centers will be located in the nontarget areas. Mobile primary-aid post teams will be mobilized from these areas. In the more distant areas from the targets, permanent hospitals will provide treatment that will avoid unnecessary disability and will put people back to work and normal activity as quickly as possible.

### **Local Planning**

Local plans are being developed on the pattern of the State's basic guide for medical services in civil defense. Each local plan should contain a clear statement of needs, both immediate and long range. Objectives of the local plan must be clearly defined. Finally, the special activities of different types of medical personnel should be foreseen as realistically as possible and described in detail.

In the local area the public must be prepared to accept the risk of possible attack by atomic bombs and also to accept the responsibility of giving mutual aid to other parts of the State. The latter is the more difficult of the two. If people understand the purpose of civil defense and participate in it, they will be better able to meet their individual emotional crises. A sound plan helps to avoid group panic and fear and can reduce the damage that might be done to those who make a frenzied attempt to escape when the area is hit.

First, direction must be provided for the lost and the fearful so that they will not wander into dangerous areas. Boys between the ages of 12 and 15 will probably make effective messengers and guides for the hysterical. Second, casualty information must be collected centrally so that correct information may be promptly given to relieve the anxiety of relatives and friends.

One of the major tasks of the local community is to train and retain the thousands of volunteer workers of all types needed to participate

in the local medical defense program. If attack does come, local groups should know that the State is prepared to extend the services of mobile columns to any part of the State. These, however, cannot be moved unless they have been properly trained and organized upon the same basic plan that is used in the area of attack.

The magnitude of civil defense against atomic attack baffles the imagination. The destructive power of the atomic bomb and the inadequacy of any military defense against it make complete security impossible. We are amateurs in chaos. Under the burden of known destruction that even one atomic bomb can cause, we must admit that we shall succeed in our humane intentions only if we can reduce the probable number of the dead, minister to the injured, and ease the anguish and suffering of the stricken.

The atomic bomb produces no new or mysterious illness. The medical profession has been familiar for many years with the effects of ionizing radiation on the body. The problem posed by such an attack is one of medical logistics—a race against time to get sufficient personnel and supplies to one or more cities in the State within hours.

## **Habel . . . Role of Laboratories**

In civil defense, health and medical services will be the responsibility of the same organizations and individuals as in peacetime, but they will operate under civil defense laws, regulations, and authority, stated Dr. Karl Habel, Chief of the Laboratory of Infectious Diseases, Microbiological Institute, National Institutes of Health, in summarizing a formal report written by Dr. Victor H. Haas.\*

Laboratories without health or medical functions should be inventoried and personnel be given orientation to enable them to fit into the civil defense scheme on instant notice. Priorities for laboratory services should be established which would be enforced by the civil defense health director.

In planning, the possibility of destruction of laboratories must be taken into account and other laboratories in the area must be ready to take over. Involved procedures or special equipment beyond local resources will be made available from regional or national laboratories as part of the total defense program.

Regional and national laboratories will be prepared to receive material for study and identification, and to send trained people to conduct local investigations or consult with local authorities.

Civil defense problems require an intensification of research in:

1. Simpler treatments for burns, in terms of applications to the burned areas.

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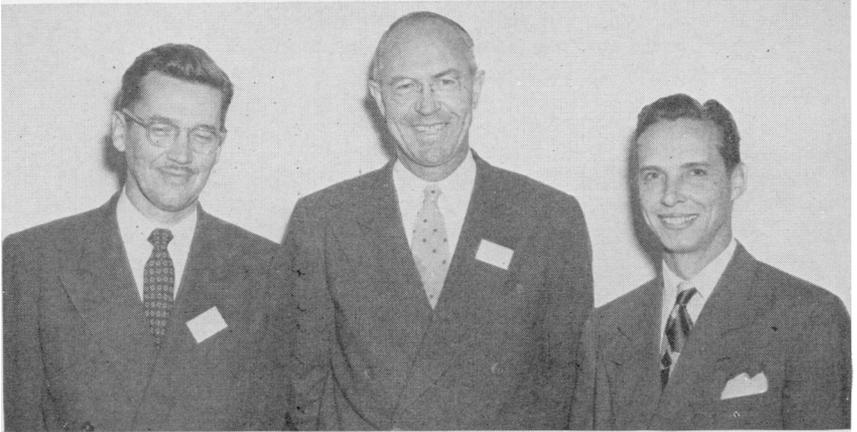
\*Director of Microbiological Institutes of NIH. This report, "The Role of the Pathologist in Civil Defense," was presented at the College of American Pathologists in Chicago, Oct. 16, 1950.

2. Supportive treatment of persons with burns or shock, particularly from the standpoint of requiring less whole blood.
  3. Better methods for preservation of cellular elements of blood.
  4. Specific treatments for diseases caused by the smaller viruses.
  5. Air sampling devices capable of detecting more agents than present equipment permits.
  6. Methods for rapid isolation and identification of pathogenic agents, either from air and water, or from pathological materials.
  7. Possibilities of mass immunization by methods less cumbersome than injection of each individual. Example: introduction of an immunizing agent into the air circulating system of a large auditorium, thereby immunizing a great many people at once, painlessly.
  8. Speeding up the immunizing process, so that active immunization could be accomplished after exposure (as in rabies treatment).
  9. Immunization against whole classes of pathogens, rather than individual species.
  10. Sterilization of large masses of air.
  11. Oiling measures to control dusts and prevent secondary dissemination of biological warfare agents from contaminated objects.
  12. Estimation of infection rates following exposure to agents that might be used in biological warfare.
  13. Timing of treatment in relation to completion of incubation period, in order to achieve maximum effectiveness from specific therapeutic agents, for example, antibiotics, which might be in short supply.
  14. Development of less cumbersome methods for many of our common laboratory operations, for example, counting of blood cells, determination of blood sugar.
- Planning, organization, and training for civil defense should not interfere with normal services as such interference would defeat its purpose. Civil defense will be a stand-by organization in peace. Periodic discussions, refresher courses, and drill exercises will be necessary to keep up efficiency.
- Local initiative is imperative in developing civil defense programs, although Federal assistance will be available, for while civil defense is national in scope, it is essentially a local operation.

### *Association Action Highlights*

Asked for relief in military camp and defense project areas with special consideration for problems, such as environmental sanitation, arising out of these defense efforts; recommended high priority for water supply, sewerage and milk processing equipment, and related sanitation facilities, in event of Federal controls; urged immediate issuance of health and medical services manual to implement mutual assistance among the States; urged an interchange of plans and progress reports among State directors of health, National Security Resources Board, and Public Health Service; urged study of decentralization of new hospital facilities, in view of atomic warfare, by State construction authorities; recommended that directors of essential health programs be considered essential until replacements are found and hoped that essential public health service staffs will not be depleted to the point that minimum services cannot be carried on; urged active role by States in investigations of air pollution with guidance as to possibility of State compacts such as in the case of water pollution.

## **Association's New Officers . . .**



New Association officers are Dr. Roy L. Cleere, president, (center), Dr. John D. Porterfield, secretary-treasurer (left), and Dr. Leroy E. Burney, vice president (right).

Dr. Roy L. Cleere, Denver, the new president of the Association of State and Territorial Health Officers has been Executive Director of the Colorado State Department of Public Health since 1936. Active in the Association for many years, he has previously held terms as vice president and as a member of its executive committee. Dr. Cleere was born in Madisonville, Tex., in 1905. He received his medical degree from the University of Texas in 1929, and served his internship in the Kansas City, Mo., General Hospital and the Presbyterian Hospital in Denver. He entered private practice in 1931. In 1935, he received a master of public health degree from the Johns Hopkins School of Public Health.

Dr. Leroy E. Burney, the new vice president, was formerly secretary-treasurer of the Association. He has been Health Commissioner in Indiana since 1945. Born in Burney, Ind., in 1906, he received his medical degree from the Indiana University School of Medicine in 1930. He interned in the U. S. Marine Hospital in Chicago. He received his master of public health degree from the Johns Hopkins School of Public Health in 1932. Dr. Burney served as a commissioned officer in the Public Health Service for 15 years.

Dr. John D. Porterfield, the new secretary-treasurer, is Director of Health for the State of Ohio. Born in Chicago in 1912, he received his medical degree from Rush Medical College in 1938 and interned at the U. S. Marine Hospital in San Francisco. He received graduate training in public health at Johns Hopkins University in 1944. He served as a commissioned officer of the Public Health Service until 1947. During World War II he was assigned to venereal disease work in the Caribbean Theater of Operations.

# **Personnel Adjustment**

## **Point IV and Doctor Draft**

The Point IV program fits well with our American ideals, Surgeon General Leonard A. Scheele said. Point IV is a bold people's proposal to demonstrate their belief in democracy and its better way of life to the farthest outposts of the world. And by democracy we mean the assurance of freedom and social progress, including health progress, through the will and action of the people themselves.

The goal of the health program under Point IV and of similar programs of the World Health Organization is to teach the people how to apply modern health knowledge to their own problems in their own countries and communities.

### **300 for Overseas**

We need 300 American public health workers to carry this knowledge to the Far East and Africa, South America, and the Middle East—300 public health workers with a belief in the worth of human beings whatever their creed or race, economic status or politics, with a sense of destiny, with the spirit of pioneers and missionaries. For it is on these qualities, as well as on professional skills, that the world depends in its struggle for peace and social progress.

Those who would isolate the world from us and who say, "We have so much to do at home, how can we help others when our own job isn't finished?" forget that to follow that line is the very thing the Communists would like. It is the philosophy that would isolate us to ultimate extinction.

I ask you to re-examine your present staffs with a view to yielding up a few key people so that our country can meet its foremost obligation to world democracy. This will mean that for a limited time all of us will have to substitute less fully trained and experienced people for a few of the highly skilled assistants on whom we have come to rely. It will mean, also, the delegation of broader responsibility to some of our present staffs.

The future dividends from such temporary inconveniences will be substantial. We will have learned how to train rapidly the auxiliary workers we have so long needed. Our staffs, both those who go overseas and those who stay at home, will gain valuable experiences and fresh viewpoints. Most important, public health will have done its part in winning a world for peace.

The Public Health Service is spreading its staff still thinner in order to do its part for the world health program. We have sent dozens of

our folks to far-away places on ECA, Point IV, and other international health projects, and we plan to send more. But our Nation expects all its health agencies to bear a fair share of the burden.

### **Represented in Mobilization**

Although the mobilization of reserve units, and reserve officers, as well as the operation of the "doctor draft" and the Selective Service program, is going to have some impact on the Nation's health services, many factors are operating to cushion the shock.

The Public Health Service has good liaison with the health and medical services of the Department of Defense. Dr. Richard L. Meiling, Director of Medical Services, Department of Defense, and the Surgeons General of the Army, Navy, and Air Force run big organizations, but they realize that their programs can break down without adequate civilian health services. The integrated program of the Defense Department is going to help.

The Selective Service System and the National Security Resources Board are the key agencies in the mobilization. The Public Health Service has close liaison with these agencies also. We have been working with Dr. Kiefer's Office of Health Resources and have a representative on the Advisory Committee to the Chairman of the NSRB, under the leadership of Dr. Howard A. Rusk.

The members of the Rusk Committee serve also as the advisory committee to the Selective Service System on the operation of the so-called doctor draft. In that capacity, the Rusk Committee also has the responsibility for coordinating the work of State and local advisory committees to Selective Service. There has been established in each State a committee to advise specifically on the doctor draft. These State committees are headed by a physician and usually include the State health officer and a dentist.

### **Protect Community Services**

The invitation to all State health officers to represent the public health interests in their jurisdictions demonstrates that the Federal Government looks to your agencies as the focal point for the protection of community health services.

The objective is to have the Department of Defense, the Public Health Service, and the Selective Service boards accept the advice of these committees both on the induction of qualified registrants and on the call-up of reserves. The various elements of the mobilization must be kept clear or we can become confused and may fail both to support our country in its call to military duty and to utilize the mechanisms set up to protect essential civilian services.

The whole concept of a "reserve" is to provide the Nation with an emergency supply of trained personnel for instant call to duty.

Nevertheless, persons who are really irreplaceable in their civilian jobs, especially those in isolated communities, can be deferred from activation of their reserve status by working directly with the State director of Selective Service, local draft boards, and State and local advisory committees on the doctor draft.

### **Deferment of Essential Registrants**

If the doctor draft begins rapidly to supply the needs of the Department of Defense for physicians, dentists, and veterinarians, it should permit a more orderly withdrawal of personnel, instead of a precipitate call-up of reserves. If the State committees take the initiative, review the situation, and define critical areas and essential positions in their jurisdiction, Selective Service boards and the military services will respect the committees' recommendations on deferment of essential reservists and registrants.

There must, of course, be some uniform criteria for determining essentiality if the doctor draft and the commissioning and calling-up of volunteer reserves are to function fairly. The machinery has just begun to operate. Patience is needed.

The law setting up the doctor draft covers physicians, dentists, veterinarians, and, other allied specialties. At the present time it is being applied only to the three specific categories. It may be extended to other categories not yet specified.

### **Induction of Health Workers**

The public health profession realizes that all health services depend on a much wider range of specially trained people than physicians, dentists, and veterinarians. At the present time, such essential men as engineers, research scientists, biostatisticians, public health teachers, sanitarians, hospital administrators, psychologists, technicians, and key administrative officers are vulnerable to induction through Selective Service. Nurses, nutritionists, health educators, and other groups predominantly composed of women also must be taken into account in the event that the present doctor draft is extended to become a health draft.

The American Public Health Association has a new Committee on Public Health in the Defense Program, under the chairmanship of Dr. Harry S. Mustard, on which Dr. Palmer Dearing, Deputy Surgeon General, will serve as consultant with Dr. Harald Graning as alternate.

This committee can interpret the broad interests of public health to the Selective Service System and to the National Security Resources Board. The committee will also be a point of liaison under the leadership of our major public health professional society for some of the professions not elsewhere represented, for the schools of public

health, and the Association of State and Territorial Health Officers.

Undoubtedly, the Nation's health agencies will encounter emergency situations in the expansion of military establishments and defense industries. The Public Health Service has taken this into account and is working on plans that should make it possible to give material assistance to the States in critical defense areas. Our first obligation is the maintenance at all times of a public health force adequate for the protection of the Nation.

## **All Registrants May Serve**

All doctors now registered under the draft will serve in the armed services according to Col. R. H. Eanes, Medical Director of Selective Service. "All" means *all* unless—the present policy of the Government should change or (1) some doctors registered who were not required to register; (2) some failed to come up to physical and mental standards; (3) some few are exempt on hardship grounds or community needs. Last minute voluntary enlistments may not save inductive-eligible physicians from a taste of recruit life.

A drafted doctor must go into the service as a recruit explained Dr. Howard A. Rusk, Medical Adviser to the Chairman of the National Security Resources Board. A recruit cannot be used as a doctor—he may be assigned ward-boy service or sent to basic training. However quickly the process of commissioning officers is speeded up, drafted doctors who wait until they receive their notices to report for physical examinations may not escape serving for a time as a recruit.

# **Current Problems**

## **Ewing . . . Better Use of Manpower**

The job of the hour, according to Oscar R. Ewing, Federal Security Administrator, is the conservation of the national resource in shortest supply—manpower.

We cannot hope to compete with our potential enemies in the size of our population, but we can, through health programs, assure maximum use of the manpower we do have.

Civil defense preparations are important, but we cannot afford to neglect other public health programs which are equally important to the successful survival of this Nation.

### **Let's Face It**

We need not wait, however, for additional resources; we can at once make better use of the not inconsiderable resources at hand. In any peacetime operation, whether Federal Government, State government, or private industry, there's a certain amount of slack. Let's do something about it. Ingenuity, imagination, brains, and hard work will go a long way toward overcoming deficits in funds and personnel.

The aged, the handicapped, the untrained, and the volunteers can do tasks that are now being done by professional persons and experts. But we need creative leadership, planning, and organization to utilize them effectively.

### **Sample Projects**

The Public Health Service through its nurse utilization studies, for example, has helped hospitals get more value from their limited supply of highly trained nurses by delegating the back-rubbing, temperature-taking tasks to less skilled technicians.

When the dental program of fluoride demonstrations was launched, dentists might have been used for this work; instead, the pattern of having dental hygienists make the topical applications was encouraged.

The new diabetes patient education program is another example of smart planning to save professional time. With the educational kit, worked out by public health personnel in cooperation with the American Dietetic Association and the American Diabetes Association, one health educator can give effective instruction to groups of patients, saving hundreds of hours of time that would otherwise have to be spent by physicians in individual consultations.

The campaign for self-examination for breast cancer, on which the

National Cancer Institute and the American Cancer Society have worked cooperatively, is another new time and labor saving project.

These are only a few of many recent developments, Mr. Ewing continued. They indicate a healthy trend and one which has by no means been exploited to the full. Further innovations should result from the resourcefulness which our staff members on WHO teams and in the Point IV programs must develop. A young Public Health Service physician in India, for example, operated a traveling VD clinic in stables and tents. He conducted prevalence studies and case-finding programs without the aid of any well-equipped laboratories. Naturally, we don't advocate return to such primitive conditions, but this training in doing a big job without modern supplies and equipment will be increasingly valuable as our jobs grow bigger and our resources smaller.

Much more could be done to help the aged and the handicapped. At a conference on aging in Washington this past summer, it was stimulating to see this group of experts and ordinary citizens tackling the problem together, and it was amazing how much they found to do without special funds, or personnel, or legislation, or equipment. Dr. Donald Covalt took the same approach in a recent speech to regional medical directors. After he had presented several paraplegic patients who had been restored to usefulness, a medical officer pointed out that most small, local hospitals had no special equipment or trained personnel for helping such patients. The world-famous specialist in physical medicine replied that rehabilitation could be done in a bare room—if the patient and his doctor had sufficient desire and determination.

### **Citizen Participation**

A somewhat different, but equally essential, type of labor conservation program is the more effective use of citizen groups. The Mid-Century White House Conference on Children and Youth can do much to revitalize the active participation of citizens in the affairs of their schools, health and welfare services, and youth groups—activity that has declined considerably since the days of pioneer villages. Literally tens of thousands of people have contributed to the detailed study of health resources in their communities. Their work aroused pride in what they have and determination to get what they still need—and more local health units are high on that list of needs. The conference can and should lead to action programs, planned and manned by citizens' groups in every community in this Nation. People are willing to give their time to improving health; the work they have already done on the White House Conference proves that. It's up to public health personnel to capitalize on that willingness—to take advantage of this vast source of needed manpower.

## **Back to Useful Work**

Public Law 734 makes possible in all States a medical care program for indigents. It can help finance services which will get people out of public institutions and onto productive jobs. It can support improved health services for dependent children. How much it actually accomplishes, however, will depend upon the competencies in each State. The opportunity can be lost and much of the money allowed to dwindle away, or it can be used to assure approved medical care for the more than 4½ million needy aged, blind, and disabled, and for the dependent children covered by public assistance. Welfare agencies will depend on the medical and public health experience of State health department officials to guide this program.

We in the Federal Security Agency will constantly seek, through Public Health Service research and control activities, for mass techniques that provide better public health services with less money and personnel. And, as in the past, we will cooperate with State and Territorial health departments on demonstrations and institutes which will spread this new knowledge quickly throughout the Nation.

## **Scheele . . . Getting More for the Dollar**

Appropriation reductions and budgetary adjustments make it necessary for us to get the most out of every dollar expended for public health. Careful appraisals of our current organizations and operations are especially important. During the past year, several management surveys of health agencies have shown that some obsolete routine activities are absorbing disproportionate amounts of money and numbers of personnel, while important new programs languish for lack of adequate funds and staff. Perhaps one of the best ways to solve these problems would be to review our older programs with the objective of using fewer highly trained personnel in activities that can function reasonably well without the high-powered staff needed in the developmental phases.

The possible reductions in our public health "standard of living," however, does not mean fewer responsibilities. We can expect more demands for the services which the Nation's public health agencies are uniquely equipped to give. The appointment of State health officers as members of the State advisory committees to the Selective Service System represents one of these additional responsibilities and affords a splendid opportunity to the health department to advise on the induction of public health personnel, Dr. Scheele said.

There are also additional responsibilities and opportunities under the new amendments to the Social Security Act which authorize the

provision of medical services to the several categories of public assistance clients. The Public Health Service has been asked by the Social Security Administration to set up proper relationships and see that the medical care program is worked down properly through health service lines.

If the State health departments do not become the agencies to plan and develop effective medical services for this new program, another nonmedical agency may be set up for the job which is really theirs.

### **Teamwork at High Level**

If a broad school health program is put into operation, the Office of Education will ask the Public Health Service and the Children's Bureau to help at the Federal level. State and local health departments also should play a greater part in the development of such programs.

New or proposed programs illustrate the advances in our inter-agency teamwork at the Federal level. The Water Pollution Control Program, the National Conference on Aging held in August, and the Mid-Century White House Conference on Children and Youth illustrate the teamwork approach. By working together in harmony we find that broad new programs for the public can be strengthened and improved by a joint approach with specialized services operated through the technical agency best qualified to do so.

### **Public Demands New Programs**

All that I have been saying adds up to this: The public will not be satisfied merely with more communicable disease control through traditional methods. The demand is for services to mothers and children, industrial workers, the chronically ill, the aged, and the disabled. The demand is that the programs be vigorously administered in the interests of the people for whom they were established.

If the health agencies are not responsive to the public demand, the people will turn to other agencies—to their schools, their welfare or labor departments, or to some new agency created to meet the demand. This can only end in overlapping and waste and in deterioration of services, both in quantity and quality.

Another administrative development that concerns all of us is the new emphasis on "management controls." The trend is in the direction of more such controls in the States as well as in the Federal Government. I believe all of us should get on top of that trend. Demonstrate our abilities—not only as good health technicians, but also as good administrators.

It is possible, however, that the Public Health Service and other grant-administering agencies will have to develop somewhat more clearly defined standards, to keep the growing, ever-more-complex

task of administration from running off the track. The special problems of the State health agency perhaps would be better understood and more sympathetically dealt with if the administrative officers and economics advisors on the governor's staff were kept informed of the philosophy, policy, and procedures of our Federal-State cooperative health programs.

## **Habel . . . Train Technician Aides**

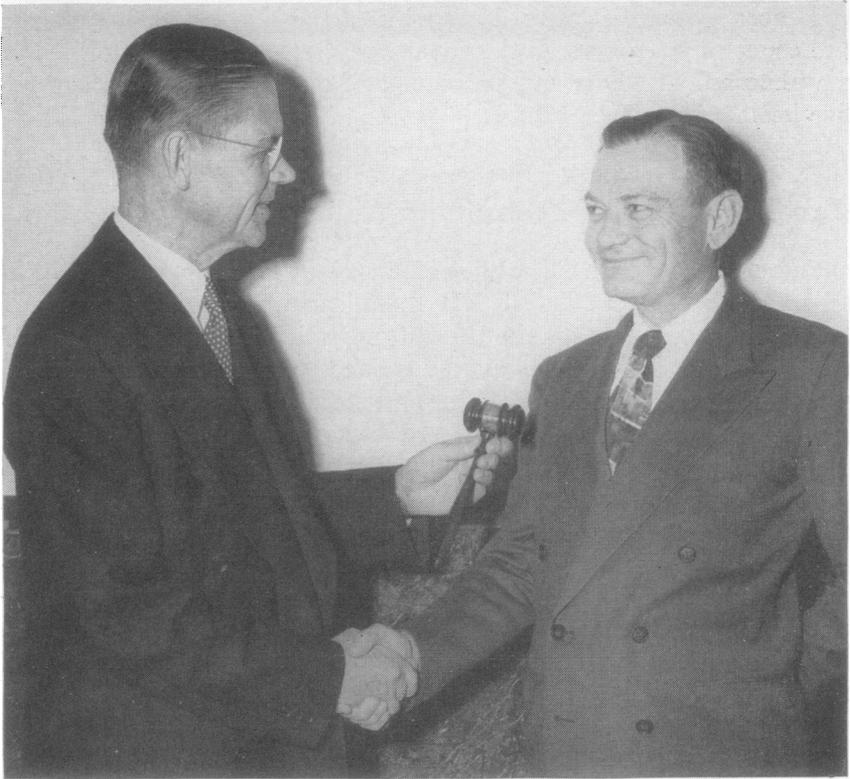
There will be a critical shortage of pathology laboratory technicians, according to Dr. Karl Habel, NIH. This can be partially countered by making it possible for the trained professional technician to cover a wider area. Lay persons can be trained as laboratory technicians' aides and do such things as: clean and sterilize glassware and instruments; label specimens, fill out record forms; feed animals, clean cages, check out sick or dead animals, prepare animals for autopsy, and perform some autopsies on animals; perform simpler tests such as blood cell counts, urinalyses, and make simple inoculations.

Part of the auxiliary staff will be technicians not in clinical pathology whose skills are convertible to such work. Technicians in research laboratories and certain commercial laboratories, and high school and college teachers of chemistry and biology could function in this capacity.

### ***Association Action Highlights***

Urged support for convening the Fifth World Health Conference (1952) in the United States; urged Council of State Governments to permit a qualified official, serving in the field of public health, to be a member of its technical advisory board; requested that States consider the need for study of industrial health hazards and recommended that health medical care programs be placed in the health and medical care agencies in the States; approved, where communities could meet standards of State health authorities and where medical and dental professions concur, the artificial fluoridation of water supplies for the partial control of dental caries; urged that a national sanitation testing laboratory be developed by the National Sanitation Foundation and official and voluntary health agencies; requested that a representative of the Association be selected as a member of the Council of Public Health Consultants of the National Sanitation Foundation; that the Conference of Sanitary Engineers consider the problem of water supply and sewerage in fringe and subdivision areas; suggested development of code for food processing and storage establishments similar to codes for eating and drinking establishments; recommended formulation of standards for sterilization of garbage used as feed for domestic animals; recommended studies by State health officers of garbage disposal problems and of the supply and distribution of chlorine and other chemicals for public health sanitation uses.

## **Presentation of Gavel . . .**



**Dr. Wilton L. Halverson, retiring president (left) presents honorary gavel to Dr. R. H. Hutcheson, president of the Association in 1949.**

The traditional presentation of the gavel of the Association of State and Territorial Health Officers was made by the retiring president, Dr. Wilton L. Halverson, California Director of Public Health, to Dr. R. H. Hutcheson, the 1949 president.

Before going to medical school, Dr. Hutcheson studied engineering and managed and operated a large plantation in Lauderdale County, Tenn. He became a physician after a report recommending public health services for his county was rejected by county officials.

Dr. Hutcheson entered the School of Medicine of the University of Tennessee in 1926 and was graduated with distinction in 1930. He became State Health Commissioner in 1943. He resides in Franklin, Tenn.

Dr. Wilton L. Halverson will serve on the executive committee, in addition to Dr. R. H. Hutcheson, Dr. N. H. Dyer, Director of Health for West Virginia, and Dr. Vlado A. Getting, Commissioner of Health for Massachusetts.

# Scientific Developments

## Biological Warfare

An enemy can attack us with infectious agents or biological toxins which are stable, resistant to heat and drying and to sunlight, capable of quantity production, and suitable for dissemination in the air, water, and milk, said Dr. Karl Habel, Chief of the Laboratory of Infectious Diseases, Microbiological Institute, National Institutes of Health.\*

Any bacteriologist can think of a number of agents which could be used to attack us, Dr. Habel stated. Influenza and psittacosis viruses, rickettsiae causing Q fever or typhus, typhoid and cholera bacteria, such fungi as *Histoplasma* and *Coccidioides*, and toxins, such as that produced by *Clostridium botulinum*, are examples of what an enemy might use for sabotage or as a part of an attack with bombs.

Possibilities of sabotage can be minimized by alertness and vigilance of laboratory directors and scrutiny of any excessive or unusual demands upon bacteriological supplies or equipment.

Civil defense health services must set up a system of air sampling and accumulate records of normal bacteriological populations of the air in target areas and strategic buildings and installations, under a variety of conditions. At present, apparatus and methods are inadequate for detection of most agents that might be used to attack us, and even organisms caught by the samplers would be identified too slowly. But a start could be made, and improvements effected.

Present methods of testing water and milk would need to be extended to give more specific information than is currently provided. The criteria used now would not have significance in biological warfare.

The first intimation of an attack with biological warfare agents will come some days after the attack and will depend upon the appearance of illnesses resulting from exposure. The pathologist will be concerned in three ways:

1. He must be alert to recognize suspicious material coming to him as part of his professional practice, and report such developments promptly to the civil defense health authorities.
2. He will take part in the combined clinical, epidemiological, and laboratory investigations that will start when an attack is suspected.
3. He may take part in formulating and putting into effect measures for control of the situation.

We can anticipate that the effect of biological warfare attacks will be that of a number of primary casualties resulting from a mass

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\*See footnote page 1502.

initial exposure, and that secondary cases will be absent or minimized. It is not felt that large-scale, self-perpetuating epidemics would develop as a result of attack.

Target area for biological warfare should designate laboratories as detection centers, with the following responsibilities:

1. Supervise collection and analysis of bacteriological material from air samplers, and testing of water and milk supplies.
2. Isolate and specifically identify pathogenic agents suspected of originating from biological warfare attacks. This would include material from patients—alive or dead—and other material collected during the course of detailed investigation.
3. Serve as base of operations for teams or groups assembled for investigations of outbreaks of disease suspected of being due to biological warfare.

## **Radiation Protection**

Because overdoses of radiation can produce burns, severe anemia, sterility, cancer, bone necrosis, and other serious conditions, the usual hospital techniques of radiation protection against X-ray must be modified and extended in the handling of radioisotopes.

Dr. Clinton Powell, Chairman of the Radiation Safety Committee of the National Institutes of Health, said that as more and more hospitals begin to use radioisotopes, either for therapy or research, the problems of protecting patients, physicians, scientists, nurses, and maintenance workers will become more widespread.

The general public, too, will be concerned with the adequacy of this protection. For example, the possible danger of radioactive waste in the public sewage systems will have to be handled at the source—in the hospital. The effects of even moderate overexposure may not be seen for several years. It is then too late, and, since we have no specific treatment for radiation injury, we must emphasize prevention.

While it has been customary to think of lead shielding as satisfactory protection when dealing with diagnostic X-ray machines, handling radioisotopes involves additional considerations. We shall now have to think of protection not only in terms of emergency construction but in terms of regular daily supervision and checking by monitors trained in these specialties.

In the isotope laboratory of the National Institutes of Health, a regular corps of these monitors, working on regular shifts, are constantly measuring worker and laboratory contamination with instruments extremely sensitive to radioactivity. Each worker carries a small pocket ionization chamber, which is read and recorded daily, and a badge that carries undeveloped photographic film, which is developed

once a week. Other instruments are installed in appropriate places for measuring contamination of workers' hands, feet, and clothing. These workers are periodically checked as well by health examination.

The disposal of radiation waste, especially, must be planned carefully. In the isotope laboratory, all air is filtered, low energy sewage is released into carefully monitored tanks, and materials with a long radioactive half-life are dumped at sea in caskets by Coast Guard cutter.

Such principles of protection will also have to be made by the hospitals, Dr. Powell said. In addition, the treatment of patients by radioactive isotopes will involve other problems in protection. Where it is practicable to do so, general hospitals should build special radiation wings—as is now being done by the Clinical Center at the National Institutes of Health.

The radiation wing of the Clinical Center will provide for the isolation of radiation patients, and this isolation will be complete. Ordinary hospital items such as dishes, clothing, sheets, and instruments will be kept separate from items usually issued centrally, and these items, too, will be monitored regularly. General hospitals can follow these procedures now.

## **Mass Casualties**

Catastrophes in peace and war come suddenly. Civilian hospitals must make detailed plans now for handling mass casualties. In general, such planning must be based on keeping the normal pattern of hospital organization intact while providing for its expansion.

Planning must encompass hundreds of details, a panel of Public Health Service experts declared. The panel included Dr. John Cronin, Chief, Division of Hospital Facilities; Dr. John McGibony, Chief, Division of Medical and Hospital Resources; and Dr. Jack Masur, Director of the Clinical Center, National Institutes of Health.

A typical detail to be considered is the possible necessity for establishing a common system of indicating the type of treatment needed or treatment already given to mass casualties. Besides tagging the patient, symbols may be drawn on a patient's forehead with a red skin pencil—as U for urgent, H for internal hemorrhage, M $\frac{1}{4}$  for  $\frac{1}{4}$  gram of morphine given.

The plans made by the 25 Marine Hospitals of the Hospital Division of the Public Health Service, based on the study of such disasters as the Texas City explosion and the Coconut Grove fire, may well be a model for catastrophe planning in all hospitals in the United States and Canada.

The main problems to be met are simply finding space for patients, and finding people to take care of patients. But both of these problems include an incredible number of step-by-step procedures plus the training of voluntary workers. Planning will have to specify definitely not only the special disaster teams, and special ambulance and first-aid units, but also those responsible for calling the appropriate clergy and for caring for personal belongings of casualties.

The types of injuries most to be expected will be shock (from injury, fright, or exposure), burns, multiple contusions and lacerations, blast injuries (thoracic and abdominal), brain and spinal-cord injuries.

The preparation for emergency supplies, the panel revealed, must include not only reserve supplies in the hospital but information on local sources of additional supplies which would be easily available. Such supplies must be specified exactly (two of this and three of that) depending on hospital space. And not only must definite amounts of drugs, bandages, and tourniquets be set aside, but such items as safety matches, flashlights, paper cups, and bars of soap.

On the basis of previous catastrophe experience, hospitals must also consider such contingencies as relatives and reporters inquiring about casualties—problems which will require proper routing procedures for visitors, a special information center, and emergency broadening of telephone facilities.

Planning alone, the panel emphasized, will not be sufficient. Like any good fire-alarm system, all these procedures must be test-practiced again and again with an actual emergency organization.

## **Penicillin Dosage Schedule**

After treatment by penicillin, there is a varying period when the surviving but damaged infectious organisms fail to multiply and are killed by the action of the body's defenses. Contrary to widespread medical belief, the body's defenses are slight, and most infectious organisms recover from the toxic effects of the drug and resume the process of multiplication.

From the point of view of dosage schedule for penicillin, Dr. Harry Eagle, Chief of the Section on Experimental Therapeutics, National Institutes of Health, stated this has considerable significance. It means that in treatment with penicillin medical men should attempt to minimize those penicillin-free periods when bacteria might recover and remultiply. While "discontinuous" treatment, as practiced, is successful, a schedule with long, penicillin-free periods is likely to be considerably slower in effecting cure than one which provides a continuously maintained level of dosage.

On the basis of his own experiments, Dr. Eagle said, the factor of duration of treatment was more important than the factor of concen-

tration. Massive doses of penicillin, with concentrations several hundred times greater than a concentration normally necessary to kill an organism, did not further accelerate the rate of penicillin action.

In some cases, provision of adequate concentrations of penicillin at the actual focus of infection, for what should have been a sufficiently long period of time, does not always effect cure. In subacute bacterial endocarditis, for example, and also in the early stages of syphilitic infection, large doses over a period of weeks may fail to kill the infection. Some of these failures, Dr. Eagle thought, might be related to the fact that bacteria are susceptible to the lethal action of penicillin in an environment conducive to growth and multiplication. In short, where the infecting organism is multiplying slowly for lack of nourishment, the drug, paradoxically, may become correspondingly inactive.

## **New Heart Measuring Device**

A recently developed instrument to measure the mechanical activity of the heart indicates the possibility that in the near future at least two major heart ailments may be detected earlier than is now possible.

Dr. Bert R. Boone, Chief of the Technical Development Section of the National Heart Institute, described the progress made to date on the device called the electrokymograph.

Investigators working with the new instrument at Temple University Medical School, Philadelphia; Mount Sinai Hospital, New York; the U. S. Marine Hospital, Baltimore; and other research centers throughout the country are hopeful that it will provide physicians with a more accurate and earlier means for detecting coronary thrombosis and constrictive pericarditis.

Coronary thrombosis occurs when a blood clot closes off important circulation nourishing the heart muscle. Early detection and prompt medical attention for cases which escape routine electrocardiographic examination would help prevent many serious complications.

Constrictive pericarditis is a hardening of the sac the heart rests in, restricting its pumping activity. Early operation can relieve the condition.

The electrokymograph consists of a unit containing a sensitive photoelectron tube added to an electrocardiograph and fluoroscope. The photoelectron "eye" measures the dynamic action of the heart muscle by means of X-rays which pass through the patient and throw a silhouette of his heart on a fluoroscopic screen. The pulsations of the silhouette are relayed to an electrocardiograph which records them permanently on a bromide film called an electrokymogram.

Unlike the fluoroscope, which permits no permanent record, or the electrocardiograph, which measures only the electrical impulses of the heart, the electrokymograph supplies a running account of the mechanical activity of the heart muscle.

Specific wave patterns for the two heart ailments are beginning to emerge from the records of thousands of individuals, both with and without heart disease, collected and analysed by the various research investigators.

Additional scientific data points to the possible use of the electrokymograph as a harmless tool to measure rapidly the blood output of the heart. Present methods are hazardous and time consuming. Since most heart conditions affect heart output, a simple, accurate check would enable physicians to detect some conditions earlier than is now possible.

The electrokymograph was first developed in 1946 at Temple University by Public Health Service research investigators, working in cooperation with university scientists.

### ***Association Action Highlights***

■ Urged that State and local health departments take cognizance of recognized facilities and the needs of nonrecognized facilities before formulating heart disease control programs and that these programs be not limited to case-finding activities but include training of laboratory technicians to perform reliable pro-thrombin determinations and to enable more extensive use of anticoagulant therapy in cardiac disorders as well as promotion of rehabilitation measures by appropriate agencies.

## **Mental Health Survey**

Where do people go for help when they have mental or emotional difficulties? Some new light was thrown on this question by a public opinion poll recently made in Phoenix, Ariz.

A report on the survey, made by the University of Michigan Survey and Research Center, was given by Dr. John A. Clausen, Social Scientist, National Institute of Mental Health.

The survey indicates that the establishment of community services is not enough, Dr. Clausen said. Even when badly needed, these services may not be used. Resistances arise not only from ignorance of what skilled professional services can do, but, perhaps, even more from prevailing misconceptions as to the nature and causes of mental and emotional problems.

Only for serious psychiatric disorders would a large proportion of those interviewed go to a psychiatrist, the survey indicated. Only one-third would be willing to visit a psychiatrist although a considerably larger proportion apparently recognized that a psychiatrist would

be the appropriate person to consult for what they described as "mental problems" or "nervous disorders."

For advice on marital, child behavior, and other problems, people are more likely to consult clergymen than family doctors or psychiatrists. If faced with difficulties in sexual adjustment in marriage, advice would probably be sought from a clergyman rather than a physician.

The survey was made to study public readiness to use professional aid in dealing with mental problems and factors which affect these attitudes. Interviews were conducted with 500 adults, selected at random from households in five areas of Phoenix and representing almost the entire socioeconomic range of the city's population.

Interviewers asked these 500 people for views and attitudes about three imaginary cases representing relatively minor mental health problems. One was the problem of "Mrs. Jones," an extremely nervous housewife who feared a breakdown. Another was the case of "Mr. and Mrs. Smith," a nice young couple who weren't able to get along together any more. The third involved "Johnny," a 10-year-old boy whose parents had just discovered that he had been stealing for some time.

About one-quarter of the people questioned on the problem of "nervousness" attributed it largely to lack of will power or to behavior a person could control if he wanted to. Approximately one-third believed that nervousness was due to a person's nature, either inherited or conditioned by early training. Another third traced nervousness to such specific situations as economic worries, the fast pace of modern life, disappointments, or shocks.

Those who connected nervousness to lack of will power or the nature of the individual also generally believed that the afflicted person would have to rely upon self help. However, the group who believed the problem to be rooted in situations or experiences of the individual, thought that aid should be sought from a psychiatrist or other professional source. Although one-third said that they themselves would readily seek such help, very few believed that others would do so.

The survey was undertaken as part of the program by the Phoenix Mental Health Center, a demonstration project of the NIMH. Established in 1948 and staffed with both clinical and research personnel, the center operates a mental health clinic, a community mental health education service, and a research project.

The survey is part of the center's research on what people know and do not know about mental health, and what they do about mental and emotional problems. It is generally recognized that people with serious mental illness need psychiatric care. The center, however, is primarily concerned with preventive measures and early treatment

of mental disorders. For this reason, it is important to know for what kinds of problems people will seek outside assistance and to what sources of aid they will turn—clergymen, family doctors, nurses, teachers, social workers, or members of other professions. As more is known about these behavior patterns, mental health programs will be able to do more to help the members of these professions deal constructively with the problems people bring them.

Less than half of the population surveyed knew that Phoenix has services to help children with emotional or behavior difficulties. Knowledge of these services was most common among the people with the highest income but with the fewest children. Less than one-third of those interviewed knew that the city has services or agencies to help deal with marriage problems.

### ***Association Action Highlights***

Urged that mental health during emergencies be the responsibility of State civil defense councils; asked for continued support and promotion of the film program launched by the National Mental Health Board; recommended the integration of mental hygiene into State programs such as public health, public schools, and general hospitals.

## **Synthetic Cortisone and ACTH**

That cortisone will eventually be available in large quantities as a result of synthesis from inexpensive plant sources was the conclusion of Dr. Erich Mosettig at the seminar on ACTH and cortisone.

Members of the seminar were Dr. Norman Topping, Associate Director of the National Institutes of Health, who acted as moderator; Dr. Evelyn Anderson, Chief of the Section on Endocrinology, and Dr. Erich Mosettig, Chief of the Section on Chemotherapy of the Experimental Biology and Medicine Institute; Dr. Luther Terry, Chief of the Section on General Medicine and Experimental Therapeutics, National Heart Institute; Ernest Allen, Assistant Chief of the Division of Research Grants and Fellowships; and Dr. E. E. Nelson, Director of the Division of Medicine, Food and Drug Administration.

The chemical synthesis of ACTH and cortisone, said Dr. Mosettig, might be made from such plants as yams, yuccas, or even possibly the soybean—plants which can be grown inexpensively and extensively in southwestern United States. While the price of ACTH and cortisone has now gone down to \$32 an ounce, as Dr. Nelson pointed out, steroid treatment over a long period of time, as now seems necessary, is still extremely expensive.

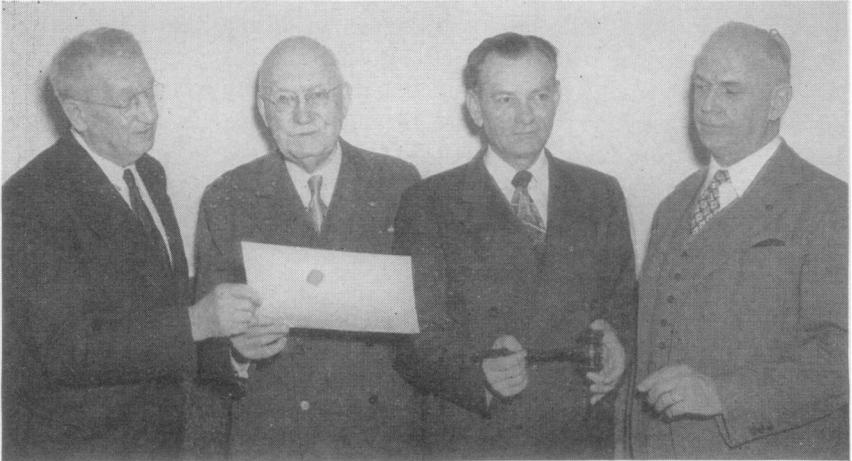
Dr. Evelyn Anderson warned that while there were many preliminary successes for ACTH and cortisone, medical men must be alert for important side effects observed in animal experimentation. Dr. Terry specified these side effects in human beings (depression, euphoria, virilism in women) and listed those diseases where ACTH and cortisone treatment was most effective. In particular, Dr. Terry felt that the treatment of rheumatic fever has been greatly improved by the introduction of cortisone.

### ***Association Action Highlights***

Urged the incorporation of diabetes screening in multiphasic programs and cooperation with medical societies in recognizing Diabetes Control Week, November 12 to 18; urged promotion of a diabetes control educational campaign directed toward patient use of the PHS-developed educational kit and training courses for professional personnel; urged State health departments to effect studies in determining environmental substances which may be responsible for apparent increase in cancer; urged State and local health departments to take appropriate action to protect public from potential danger from untrained personnel operating fluoroscopic shoe-fitting machines; urged pilot studies to determine role of public health workers in rehabilitation programs for chronically ill; urged State health departments to further activities in nutrition programs in relation to human health; recommended State health agencies encourage improvement of diets of general population and of individuals receiving care in State institutions.

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**Arthur Thomas McCormick Award . . .**



Dr. R. H. Hutcheson (2d from right) holds the honorary gavel which he received for his services as 1949 president of the Association. With him are three of the four men who received the McCormick award. Left to right are Dr. A. J. Chesley, Dr. Walter L. Bierring, and Dr. Stanley H. Osborn. The award was presented in absentia to Dr. Felix J. Underwood.

A special award for meritorious service in the field of public health was granted for the first time by the Association.

The recipients of this award, honoring the name of the former State Health Commissioner for Kentucky, were:

Dr. Walter L. Bierring, Iowa State Health Commissioner and a former president of the American Medical Association.

Dr. A. J. Chesley, secretary and executive officer of the Minnesota Department of Health and a former president of the Conference of State and Provincial Health Authorities of North America.

Dr. Stanley H. Osborn, Connecticut Commissioner of Health and a former president of the Conference of State and Provincial Health Authorities of North America.

Dr. Felix J. Underwood, secretary and executive officer of the Mississippi State Board of Health and a former president of the American Public Health Association. He is vice chairman of the American Board of Preventive Medicine and Public Health.

# **Health and the Child**

## **Lenroot . . . Specialized Services Needed**

Children present public health workers with a bigger challenge today than ever before, Katharine F. Lenroot, Chief of the Children's Bureau, told the health officers. There are 10 percent more children under 20, and 50 percent more children under 5 years of age, than when the Federal Government started its grant-in-aid programs for child health services in 1935.

We are richer in children than ever before in our history, and we have more knowledge, skills, and resources than we ever had before. We have demonstrated, over these 15 years, what tremendous gains we can make in saving the lives of mothers, infants, and older children when we apply our knowledge and money and organization to this purpose.

How can we make life more worth living for the youngsters we keep alive and especially for those who have physical and emotional handicaps is the question that faces all health workers. This is a tougher job than that of reducing maternal and childhood mortality. It calls for highly specialized services for children with special problems: children with cerebral palsy, rheumatic fever, epilepsy, with hearing and sight defects, and especially children with twisted and unhappy feelings.

## **Daily . . . New Health Tools for Children**

If the full amount of Federal funds authorized by the 1950 amendments to the Social Security Act are appropriated next year, Dr. Edwin F. Daily, Director of Health Services, Children's Bureau, predicts \$47,250,000 will be available in 1952 from Federal and State matching funds to help finance public health programs for mothers and children. Such funds can mean a great deal in the lives of many children.

We have new and valuable tools we must put to work for as many needful children as we can reach: the sulfa drugs, penicillin, and other antibiotics; the use of blood and blood derivatives; perfection of pertussis vaccine; fluorides for prevention of dental caries; the electroencephalograph for more accurate diagnosis of epilepsy and new drugs for its control; amazing improvements in the care of premature infants; new knowledge of the importance of proper nutrition in preg-

nancy and childhood; and successfully operating community programs for the detection, diagnosis, and treatment of hearing loss in children.

Equally essential is the sensitizing of all public health workers to the importance of emotional attitudes in mothers and children. These play a vital part in determining the course of illness, or pregnancy, or the effectiveness of treatment. Health workers must also understand the social, economic, and environmental factors affecting the whole family for success in improving the health of an individual member.

"The humanizing" of hospital care for both mothers and children is a recent trend intimately related to the growing understanding of their emotional needs. Care is taken that clinic patients are not pushed about like sheep, that their hospital admission is a pleasant experience, and that the child is comforted by the friendly concern of doctors and nurses. Another wholesome trend is the gradual disappearance of the closely-packed nursery with its isolation of mother and child, and the substitution of rooming-in arrangements where mothers can have their babies close by. A few communities are learning that many children with long-term illnesses can be cared for in their own homes, with home services by all professional personnel needed, and at far less cost than hospital care.

## **Glasser . . . Mid-Century Conference**

When the Mid-Century White House Conference on Children and Youth opens its doors on December 3 for 4 days of serious work, its 5,000 delegates, each personally invited by President Truman, will be prepared to contribute their ideas on the crucial question posed by the conference:

How can we develop in children the mental, emotional, and spiritual qualities essential to individual happiness and to responsible citizenship, and what physical, economic, and social conditions are deemed necessary to this development?

Never before, said Melvin A. Glasser, Executive Director of the Conference, has there been such mustering of citizen interest in achieving a better childhood for the children of the Nation. No fewer than 100,000 citizens have contributed in one way or another to preparation for this conference. The Governors of all the States and Territories have designated official White House Conference committees. Similar citizen committees have been organized in 1,000 counties. Over 150 national organizations with action programs in behalf of children, more than 100 specialists and research students, and all the committees are submitting reports for conference consideration.

A new way of looking at children's needs is arising—not just counting the children who lack decent homes, medical care, etc., but looking to see what damage is done to a child's personality when these are lacking. The doctors, nurses, teachers, and others who are most successful with children are the ones who take into account the feelings of the children they are serving.

## Hard-of-Hearing Children

More than 1,000,000 children in the United States have hearing losses needing medical attention. Yet, only a small proportion get the well-rounded care new scientific developments have to offer such as: audiometer testing, prevention through the use of the sulfonamides and antibiotics, medical and surgical treatment, adjustment to the hearing loss through the use of hearing aids, and auditory and speech training.

Many children are erroneously judged to be totally deaf—a rare condition in children—and too frequently placed in special institutions, when actually many can be helped by new developments and lead reasonably normal lives at home.

Two authorities on hearing and speech problems of children discussed with the health officers the ways of providing services to help these children: Dr. William G. Hardy, Director of the Speech and Hearing Clinic at Johns Hopkins Hospital; and Dr. John E. Bordley, Associate Professor of Laryngology and Otology at Johns Hopkins University School of Medicine.

Some of the points they made include:

*Public education.* This should emphasize the frequency of hearing impairment in the community and promote general understanding of actual hearing mechanisms. Rapport between personnel in education and health fields is essential to the success of any program.

*Case finding.* A recent Nation-wide survey showed that only 11 percent of school age children have had hearing tests. A case-finding program begun when the child enters school is too late. The profound and many lesser hearing handicaps in childhood usually occur prior to school age. Nevertheless, a case-finding program among preschool children is rare, even though there has been a recent trend to provide formal education for preschoolers with hearing difficulties. The screening program in preschool children is dependent largely upon the services of many community agencies since a mass screening technique is not readily applicable, although testing in individual cases is reliable even at 1 to 2 years of age. For every preschool child known to have severe hearing loss there are probably 20 with milder degrees labeled mental retardation or behavior problem.

*Complete pediatric appraisal.* The diagnostic examination is better done under the aegis of a pediatrician. When the child cannot communicate properly other difficulties follow.

*Adequate medical and surgical treatment.* Some 15,000,000 adults in the United States have auditory difficulties. About 50 percent of the impairments started in childhood and could have been reversed if treated soon enough. There may be a loss of only 15 to 18 decibels in two or more frequencies in each ear with no acute otological symptoms. Referrals of such children may be helpful as a baseline; if further loss occurs something should be done. The child with a loss of 25 to 30 decibels is probably headed for trouble, even though this degree of hearing loss is only borderline in the adult. Hearing impairment may be of a mixed type. There may be Eustachian tube obstruction in addition to a degree of nerve deafness. In such instances, treatment of the reversible portion is even more important in order to relieve the effects of the conductive lesions.

*Audiologic study and consultation.* Audiology is the science of hearing. The audiologist may be a research man or a clinician. Services must include a complete appraisal of the physical and the behavior mechanisms concerned with hearing. When hearing aids are provided training must go along with them so that they may be used to best advantage. Speech reading (this term is replacing lip reading) is essential. Psychotherapy should be provided as needed.

*Special education.* Special services should be provided as needed in the school the child would ordinarily attend. Institutional care of children with hearing disabilities is being reappraised at the present time. The average cost of such care is \$1,500 a year per child. Once placed, few children are removed during the school years.

### ***Association Action Highlights***

Endorsed World Health Organization report on definition of live birth and fetal death and urged States to change their definitions accordingly as rapidly as possible; urged State and local health departments to study current investigations of fetal deaths and initiate further studies of the causes and prevention of fetal deaths; recommended that State health departments cooperate with State welfare and education and other agencies in developing standards for care of children in institutions; that a study be made and recommendations listed concerning development of home care programs for children with long-term illnesses and for maternity patients discharged early from hospitals.

# Incidence of Disease

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

## UNITED STATES

### Reports From States for Week Ended October 28, 1950

New cases of acute poliomyelitis reported in the United States during the current week numbered 1,316, a 15 percent decrease from the 1,549 (corrected) cases reported for the preceding week. This is the fifth consecutive week that a decrease from the preceding week has been reported. The figure for this week is higher than the corresponding number (1,071) for 1949.

The cumulative total (26,698) for the current "disease" year was below the corresponding total (37,218) for last year, the highest on record. The "disease" year for acute poliomyelitis begins with the twelfth week of the calendar year. The cumulative total for the calendar year was 27,830, compared with the total of 38,131 for the corresponding period last year.

For the current week, reported cases of poliomyelitis in 8 of the total of 9 geographic divisions decreased from the preceding week. These decreases ranged from 69 (347 to 278) cases reported in the

#### Comparative Data For Cases of Specified Reportable Diseases: United States

[Numbers after diseases are International List numbers, 1948 revision]

Disease	Total for week ended—		5-year median 1945-49	Seasonal low week	Cumulative total since seasonal low week—		5-year median 1944-45 through 1948-49	Cumulative total for calendar year—		5-year median 1945-49
	Oct. 28, 1950	Oct. 29, 1949			1949-50	1948-49		1950	1949	
Anthrax (062).....	1	2	(1)	(1)	(1)	(1)	(1)	40	44	(1)
Diphtheria (055).....	150	251	359	27th	1,706	2,448	3,181	4,834	6,216	9,478
Acute infectious encephalitis (082).....	32	16	14	(1)	(1)	(1)	(1)	816	663	543
Influenza (480-483).....	1,448	1,458	1,576	30th	14,370	10,815	11,795	260,629	86,682	154,148
Measles (085).....	1,201	637	1,190	35th	5,805	4,443	5,767	293,976	592,961	560,009
Meningococcal meningitis (057.0).....	69	66	66	37th	367	325	325	3,166	2,841	2,932
Pneumonia (490-493).....	1,011	1,183	-----	(1)	(1)	(1)	(1)	68,752	64,938	-----
Acute poliomyelitis (080).....	1,316	1,071	715	11th	<sup>2</sup> 26,698	37,218	21,910	<sup>2</sup> 27,830	38,131	22,377
Rocky Mountain spotted fever (104).....	1	2	1	(1)	(1)	(1)	(1)	445	549	535
Scarlet fever (050).....	961	907	1,195	32d	5,315	5,580	7,039	45,485	63,246	68,953
Smallpox (084).....	-----	-----	-----	35th	1	3	5	27	44	152
Tularemia (069).....	14	11	11	(1)	(1)	(1)	(1)	767	960	807
Typhoid and paratyphoid fever (040, 041) <sup>1</sup> .....	83	72	73	11th	<sup>2</sup> 2,471	2,950	2,950	<sup>2</sup> 2,980	3,438	3,438
Whooping cough (056).....	1,543	1,415	1,620	39th	5,909	5,593	6,183	103,104	52,195	82,058

<sup>1</sup> Not computed.

<sup>2</sup> Deductions: Poliomyelitis—Michigan, week ended Oct. 21, 2 cases; typhoid fever—North Carolina, week ended July 1, 1 case.

<sup>3</sup> Including cases reported as salmonellosis.

Middle Atlantic States to 3 (127 to 124) in the Pacific States. An increase of 13 cases (419 to 432) occurred in the East North Central States.

For the current week, the States reporting the largest numbers of cases were: New York (180), Michigan (127), Illinois (110), Ohio (101), California (77), and Wisconsin (67).

Alaska reported 4 cases compared with 5 last week. The cumulative total for the calendar year was 49. Hawaii reported 1 case for the week.

Reported cases of scarlet fever for the current week numbered 961, the highest total for any week since the week ended June 3 when 1,015 cases were reported. These figures may be compared with the corresponding week in 1949 when 907 cases were reported and the 5-year (1945-49) median for the current week which was 1,195. The trend in reported cases of scarlet fever, by geographic division for the past four weeks, with the cumulative calendar total, was as follows:

Area	Weeks ended—				
	Sept. 30	Oct. 7	Oct. 14	Oct. 21	Oct. 28
New England.....	45	30	41	48	67
Middle Atlantic.....	70	69	90	102	130
East North Central.....	87	143	154	185	228
West North Central.....	19	36	24	21	52
South Atlantic.....	96	122	133	145	175
East South Central.....	70	83	93	108	126
West South Central.....	27	29	29	54	53
Mountain.....	11	9	12	19	17
Pacific.....	49	65	83	96	113
Total.....	474	586	659	778	961
Cumulative calendar total.....	42,501	43,087	43,746	44,524	45,485

### **Deaths During Week Ended Oct. 28, 1950**

	<i>Week ended Oct. 28, 1950</i>	<i>Corresponding week, 1949</i>
<b>Data for 94 large cities of the United States:</b>		
Total deaths.....	8,848	9,068
Median for 3 prior years.....	9,068	-----
Total deaths, first 43 weeks of year.....	393,740	393,581
Deaths under 1 year of age.....	645	625
Median for 3 prior years.....	635	-----
Deaths under 1 year of age, first 43 weeks of year.....	26,674	28,120
<b>Data from industrial insurance companies:</b>		
Policies in force.....	69,607,123	70,087,000
Number of death claims.....	13,605	13,740
Death claims per 1,000 policies in force, annual rate.....	10.2	10.2
Death claims per 1,000 policies, first 43 weeks of year, annual rate.....	9.2	9.2

**Reported Cases of Selected Communicable Diseases: United States, Week Ended Oct. 28, 1950**

[Numbers under diseases are International List numbers, 1948 revision]

Area	Diphtheria (055)	Encephalitis, infectious (082)	Influenza (480-483)	Measles (085)	Meningitis, meningococcal (057.0)	Pneumonia (490-493)	Polio-myelitis (080)
<b>United States</b> .....	<b>150</b>	<b>32</b>	<b>1,448</b>	<b>1,201</b>	<b>69</b>	<b>1,011</b>	<b>1,316</b>
<b>New England</b> .....		<b>1</b>	<b>4</b>	<b>39</b>	<b>5</b>	<b>57</b>	<b>45</b>
Maine.....				4	1	7	3
New Hampshire.....			3			1	2
Vermont.....							1
Massachusetts.....		1		25	3		23
Rhode Island.....				5			
Connecticut.....			1	5	1	49	16
<b>Middle Atlantic</b> .....	<b>6</b>	<b>2</b>	<b>6</b>	<b>258</b>	<b>16</b>	<b>300</b>	<b>278</b>
New York.....	3	1	1	78	8	194	180
New Jersey.....	2	1	5	73	3	37	47
Pennsylvania.....	1			107	5	69	51
<b>East North Central</b> .....	<b>15</b>	<b>5</b>	<b>28</b>	<b>276</b>	<b>14</b>	<b>106</b>	<b>432</b>
Ohio.....	5		2	46	5		101
Indiana.....	3	2	5	8		11	27
Illinois.....	3	1	2	53	5	50	110
Michigan.....	4	2		42	2	41	127
Wisconsin.....			19	127	2	4	67
<b>West North Central</b> .....	<b>4</b>	<b>3</b>	<b>1</b>	<b>56</b>	<b>6</b>	<b>35</b>	<b>133</b>
Minnesota.....	2			4		10	23
Iowa.....	1	1		5		1	56
Missouri.....	1			31	2	7	16
North Dakota.....				7		7	
South Dakota.....		1					3
Nebraska.....							12
Kansas.....		1	1	9	4	10	23
<b>South Atlantic</b> .....	<b>44</b>	<b>1</b>	<b>287</b>	<b>114</b>	<b>5</b>	<b>88</b>	<b>144</b>
Delaware.....				7	1		1
Maryland.....				1	2	10	31
District of Columbia.....				3		15	6
Virginia.....	2		216	38		34	36
West Virginia.....	7		49	37		4	7
North Carolina.....	14			2			28
South Carolina.....	10		4		1	10	11
Georgia.....	11	1	18	25		5	14
Florida.....				1	1	10	10
<b>East South Central</b> .....	<b>38</b>		<b>35</b>	<b>48</b>	<b>9</b>	<b>77</b>	<b>47</b>
Kentucky.....	7		3	29	2	34	14
Tennessee.....	15		16	12	4		12
Alabama.....	12		15	3	2	27	3
Mississippi.....	4		1	4	1	16	18
<b>West South Central</b> .....	<b>32</b>		<b>1,015</b>	<b>90</b>	<b>4</b>	<b>257</b>	<b>89</b>
Arkansas.....	3		108	6	1	31	8
Louisiana.....	2					5	18
Oklahoma.....	4		74	10	1	14	8
Texas.....	23		833	74	2	207	55
<b>Mountain</b> .....	<b>6</b>	<b>2</b>	<b>60</b>	<b>122</b>	<b>5</b>	<b>46</b>	<b>24</b>
Montana.....	2		7	4			3
Idaho.....			3	17		3	4
Wyoming.....				2	2	2	
Colorado.....	3		5	71	2	11	9
New Mexico.....				2		10	1
Arizona.....	1	2	45	6		19	4
Utah.....				20	1	1	3
Nevada.....							
<b>Pacific</b> .....	<b>5</b>	<b>18</b>	<b>12</b>	<b>196</b>	<b>5</b>	<b>45</b>	<b>124</b>
Washington.....				37		1	21
Oregon.....	1		5	8	1	8	26
California.....	4	18	7	153	4	36	77
Alaska.....			1			2	4
Hawaii.....			88	7		2	1

<sup>1</sup> New York City only.

Anthrax: Pennsylvania, 1 case.

**Reported Cases of Selected Communicable Diseases: United States, Week Ended Oct. 28, 1950—Continued**

[Numbers under diseases are International List numbers, 1948 revision]

Area	Rocky Mountain spotted fever (104)	Scarlet fever (050)	Small-pox (084)	Tularemia (059)	Typhoid and paratyphoid fever <sup>1</sup> (040, 041)	Whooping cough (056)	Rabies in animals
<b>United States</b> .....	<b>1</b>	<b>961</b>		<b>14</b>	<b>83</b>	<b>1,543</b>	<b>111</b>
<b>New England</b> .....		<b>67</b>			<b>4</b>	<b>226</b>	
Maine.....		9			1	54	
New Hampshire.....		1				4	
Vermont.....		2				62	
Massachusetts.....		49			2	60	
Rhode Island.....						16	
Connecticut.....		6			1	30	
<b>Middle Atlantic</b> .....	<b>1</b>	<b>130</b>			<b>17</b>	<b>312</b>	<b>23</b>
New York.....	1	<sup>2</sup> 58			8	108	23
New Jersey.....		23			1	134	
Pennsylvania.....		49			8	70	
<b>East North Central</b> .....		<b>228</b>		<b>1</b>	<b>9</b>	<b>314</b>	<b>17</b>
Ohio.....		96		1	3	58	4
Indiana.....		15			2	32	8
Illinois.....		29			2	35	
Michigan.....		63			2	92	5
Wisconsin.....		25				97	
<b>West North Central</b> .....		<b>52</b>		<b>2</b>	<b>5</b>	<b>137</b>	<b>5</b>
Minnesota.....		11				8	2
Iowa.....		8				46	3
Missouri.....		11		2	3	18	
North Dakota.....		1				11	
South Dakota.....							
Nebraska.....		9				15	
Kansas.....		12			2	39	
<b>South Atlantic</b> .....		<b>175</b>		<b>1</b>	<b>14</b>	<b>142</b>	<b>14</b>
Delaware.....		4			1	2	
Maryland.....		11			1	24	
District of Columbia.....		7				1	
Virginia.....		27			3	21	
West Virginia.....		10				28	1
North Carolina.....		77		1	1	41	
South Carolina.....		10				2	8
Georgia.....		22			7	12	4
Florida.....		7			1	11	1
<b>East South Central</b> .....		<b>126</b>		<b>2</b>	<b>8</b>	<b>71</b>	<b>22</b>
Kentucky.....		31			1	11	9
Tennessee.....		70			3	30	6
Alabama.....		17		1	2	24	5
Mississippi.....		8		1	2	6	2
<b>West South Central</b> .....		<b>53</b>		<b>2</b>	<b>15</b>	<b>174</b>	<b>28</b>
Arkansas.....		3			6	15	3
Louisiana.....		1			1		
Oklahoma.....		14			1	8	2
Texas.....		35		2	7	151	23
<b>Mountain</b> .....		<b>17</b>		<b>5</b>	<b>2</b>	<b>88</b>	
Montana.....		4				7	
Idaho.....		2			1	6	
Wyoming.....				2		5	
Colorado.....		6			1	17	
New Mexico.....						9	
Arizona.....		1				32	
Utah.....		4		3		12	
Nevada.....							
<b>Pacific</b> .....		<b>113</b>		<b>1</b>	<b>9</b>	<b>79</b>	<b>2</b>
Washington.....		48			2	25	
Oregon.....		7		1		6	
California.....		58			7	48	2
Alaska.....							
Hawaii.....		3					

<sup>1</sup> Including cases reported as salmonellosis.

<sup>2</sup> Including cases reported as streptococcal sore throat.

# FOREIGN REPORTS

## CANADA

*Reported Cases of Certain Diseases—Weeks Ended Oct. 7 and 14, 1950*

*Week Ended Oct. 7, 1950*

Disease	New found-land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Brucellosis					2						2
Chickenpox	3		10		45	86	18	35	47	53	297
Diphtheria					10	1	1				12
Dysentery, bacillary					6	11	1			2	20
Encephalitis, infectious								2			2
German measles	1		6		2	35		3	9	17	73
Influenza			46			1	5				52
Measles			9		196	142	16	7	17	35	422
Meningitis, meningococcal						1		1			2
Mumps			6		49	58	12	49	33	31	238
Poliomyelitis				1		8		6	6	3	24
Scarlet fever	3		2		34	17	10	11	27	4	108
Tuberculosis (all forms)	4		8	10	135	35	23	5			220
Typhoid and paratyphoid fever				1	13			1	1	3	19
Veneral diseases:											
Gonorrhoea	6		11	10	79	55	32	21	53	67	334
Syphilis (total)	5		8	3	64	21	3	2	12	10	128
Primary			2		6		1	2	1		12
Secondary			1		5					1	7
Other	5		5	3	53	21	2		11	9	109
Whooping cough	1		4	8	29	62	7	3	3	36	153

*Week Ended Oct. 14, 1950*

Brucellosis					6			1	1		8
Chickenpox			15	3	172	197	20	37	45	73	562
Diphtheria	1				2	2	1				6
Dysentery, bacillary					7	5	6			3	21
German measles			3	1	3	41		6	2	14	70
Influenza			17		2						19
Measles	1		10		87	164	28	11	2	86	389
Meningitis, meningococcal	1				1	3				1	6
Mumps			1	1	78	85	11	23	59	35	293
Poliomyelitis						5		2	2	2	11
Scarlet fever	3		1		63	31	10	8	23	18	157
Tuberculosis (all forms)	9		10	24	86	14	21	9	22	70	265
Typhoid and paratyphoid fever	1			1	10	3			1		16
Veneral diseases:											
Gonorrhoea	7		9	6	77	43	35	23	45	62	307
Syphilis (total)	2		5	2	50	20	2	7	7	9	104
Primary			2		4	6		4	3	2	21
Secondary				1	1	1			1		4
Other	2		3	1	45	13	2	3	3	7	79
Whooping cough	2		2	2	111	122	9	5	2	21	276

## MADAGASCAR

### Reported Cases of Certain Diseases and Deaths—August 1950

Disease	Aliens		Natives	
	Cases	Deaths	Cases	Deaths
Bilharziasis .....			22	
Diphtheria .....	5		7	
Dysentery:				
Amebic .....	4		97	1
Bacillary .....	1		88	11
Erysipelas .....			4	
Influenza .....	171	6	9, 134	89
Leprosy .....			48	
Malaria .....	200	8	29, 318	114
Measles .....	2		54	
Meningitis, meningococcal .....	1		4	1
Mumps .....			66	
Paratyphoid fever .....	1			
Plague .....			4	3
Pneumonia (all forms) .....	32		1, 388	167
Puerperal infection .....			3	1
Tuberculosis, respiratory .....	2	1	80	16
Typhoid fever .....	1		5	1
Whooping cough .....	8	1	201	4

## NORWAY

### Reported Cases of Certain Diseases—August 1950

Disease	Cases	Disease	Cases
Brucellosis .....	2	Paratyphoid fever .....	1
Diphtheria .....	6	Pneumonia (all forms) .....	1, 380
Dysentery, unspecified .....	5	Poliomyelitis .....	117
Encephalitis, infectious .....	1	Rheumatic fever .....	71
Erysipelas .....	362	Scabies .....	605
Gastroenteritis .....	4, 055	Scarlet fever .....	91
Hepatitis, infectious .....	115	Scarlet fever (all forms) .....	264
Impetigo contagiosa .....	1, 903	Typhoid fever .....	4
Influenza .....	2, 152	Veneral diseases:	
Malaria .....	2	Gonorrhoea .....	228
Measles .....	290	Syphilis .....	50
Meningitis, meningococcal .....	10	Other forms .....	4
Mumps .....	60	Whooping cough .....	1, 826

### REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

The following reports include only items of unusual incidence or of special interest and the occurrence of these diseases, except yellow fever, in localities which had not recently reported cases. All reports of yellow fever are published currently. A table showing the accumulated figures for these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday in each month.

#### Cholera

*Burma.* During the week ended September 23, 1950, one fatal case of cholera was reported in the port of Kyaukpyu.

*India.* For the week ended October 21, 1950, 110 cases of cholera were reported in Madras.

*India (French).* Eight cases of cholera were reported in Karikal, French India, during the week ended September 30, 1950. During the week ended October 7, 4 cases were reported in Karikal, and 4 cases in Pondicherry.

#### Plague

*Belgian Congo.* During the period October 7-19, 1950, one fatal case of pneumonic plague was reported in Stanleyville Province at Djaiba, north of Blukwa. On October 19 one fatal case of septicemic plague was reported at Blukwa.

*Burma.* During the week ended September 9, 1950, one fatal case of plague, imported, was reported in the port of Pegu.

*China.* Plague has been reported in Fukien Province as follows: June 1-30, 1950, 168 cases, 56 deaths; July 1-31, 74 cases, 36 deaths. In Kwangtung Province, 103 cases, with 17 deaths were reported during the month of June, and 5 cases, 1 death, were reported in Suichi District during the period July 1-10.

*Madagascar.* During the period October 1-10, 1950, 8 cases of plague, with 7 deaths, were reported in Madagascar, of which 7 cases, 6 deaths, occurred in Majunga Province.

#### Smallpox

*Angola.* Thirty-two cases of smallpox were reported in Angola during the month of May 1950, and 94 cases during the month of June.

*Cameroon (French).* Twenty-two cases of smallpox, with 5 deaths, were reported in French Cameroon during the period October 1-10, 1950.

*Dahomey.* For the period October 11-20, 1950, 42 cases of smallpox were reported in Dahomey.

*Peru.* Smallpox has been reported in Peru as follows: June 1-30, 1950, 379 cases; July 1-31, 245 cases.

#### Typhus Fever

*Germany (United States Zone).* During the week ended September 30, 1950, one case of typhus fever was reported in Hesse.

*Peru.* During the month of June 1950, 115 cases of typhus fever were reported and during the month of July, 151 cases were reported.

#### Yellow Fever

*Gold Coast.* Yellow fever was reported in Accra, Gold Coast, as follows: October 9-12, 1950, one fatal suspected case; on October 11, one suspected case.

*Venezuela.* During the period October 6-10, 1950, two deaths from jungle yellow fever were reported in Bolivar State. Health

authorities stated both these deaths occurred in jungle areas, one of them 124 miles from the other. Exact localities were not given.

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### **Plague Infection in the Hamakua District, Hawaii**

A letter dated October 25, 1950, from Hawaii states that plague infection was proved in a mass inoculation of tissue from two rats, *R. norvegicus*, trapped October 11, 1950, in district 5A, Honokaa Area, Hamakua District, Island of Hawaii.